

DOE/NE-ID-11164

Revision 0

June 2004



U.S. Department of Energy
Idaho Operations Office

***Action Memorandum for the Decontamination
and Decommissioning of Building CPP-627,
the Remote Analytical Facility***



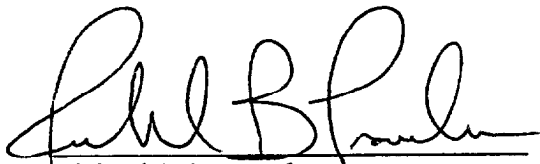
Idaho National Engineering and Environmental Laboratory

**Action Memorandum for the Decontamination and
Decommissioning of Building CPP-627,
the Remote Analytical Facility**

June 2004

**Prepared for the
U.S. Department of Energy
DOE Idaho Operations Office**

Signature sheet for the Action Memorandum covering the CPP-627 building, a part of the Fuel Reprocessing Complex at the Idaho Nuclear Technology and Engineering Center (INTEC) at the U.S. Department of Energy's (DOE's) Idaho National Engineering and Environmental Laboratory (INEEL). This action is conducted by the U.S. Department of Energy, with the concurrence of the U.S. Environmental Protection Agency and the Idaho Department of Environmental Quality.



Richard B. Provencher

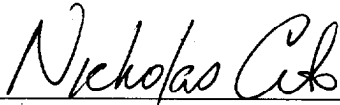
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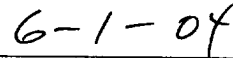
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Date

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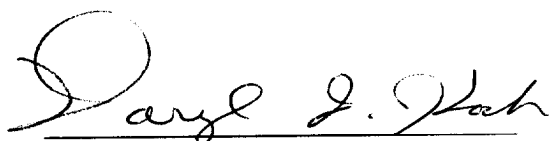


Nicholas Ceto
INEEL Program Manager
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Date

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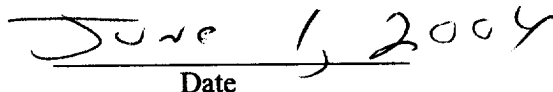


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ABSTRACT

This report is the decision document that provides for the removal of Building CPP-627, an outdated laboratory facility located at the Idaho National Engineering and Environmental Laboratory. This non-time critical removal action will reduce the risks to human health, the environment, and site workers by minimizing the potential for release of hazardous and radioactive substances through removal of the waste and disposal of Building CPP-627 down to its concrete slab. This removal action is consistent with the Comprehensive Environmental Response, Compensation, and Liability Act Operable Unit 3-13 Record of Decision for Waste Area Group 3, thus supporting the overall remediation goals at Waste Area Group 3.

CONTENTS

1.	STATEMENT OF BASIS AND PURPOSE	1
2.	BACKGROUND AND FACILITY DESCRIPTION	2
2.1	Background	2
2.2	Facility Description	2
2.3	Previous and Current Actions.....	5
3.	THREAT TO PUBLIC HEALTH/WELFARE/ENVIRONMENT.....	6
4.	ENDANGERMENT DETERMINATION.....	7
5.	PROPOSED ACTIONS	7
5.1	Proposed Action	7
5.1.1	Complete Removal of CPP-627 Facility to Slab on Grade.....	7
5.1.2	Removal Action Objectives and Contribution to Remedial Performance	9
5.2	Engineering Evaluation/Cost Analysis.....	10
5.2.1	No Action Alternative (Continued Surveillance & Maintenance).....	10
5.2.2	Complete Removal of CPP-627 Facility to Slab on Grade.....	10
5.3	Applicable or Relevant and Appropriate Requirements.....	10
6.	PROJECT SCHEDULE	21
7.	ESTIMATED COST	21
8.	EXPECTED CHANGE SHOULD ACTION BE DELAYED OR NOT TAKEN.....	21
9.	STATUTORY AND REGULATORY AUTHORITY	22
10.	OUTSTANDING POLICY ISSUES.....	22
11.	ENFORCEMENT.....	22
12.	RECOMMENDATION.....	22
13.	REFERENCES	22
	Appendix A—Responses to Public Comments On CPP-627 Removal Action.....	25

FIGURES

1.	Location of the Idaho Nuclear Technology and Engineering Center on the Idaho National Engineering and Environmental Laboratory Site.....	3
2.	Plan view of the Idaho Nuclear Technology and Engineering Center.....	4

TABLES

1.	Expected waste streams and volumes for CPP-627	6
2.	Anticipated waste streams and sources of contamination.....	8
3.	Applicable or relevant and appropriate requirements for the CPP-627 non-time critical removal action.....	12
4.	Estimated costs for CPP-627 removal action.....	21

ACRONYMS

ACM	asbestos-containing material
ARAR	applicable or relevant and appropriate requirement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFA	Central Facilities Area
DD&D	deactivation, decontamination, and decommissioning
DDL	Decon Development Laboratory
DOE	Department of Energy
EE/CA	engineering evaluation/cost analysis
EPA	Environmental Protection Agency
ESL	Emission Spectroscopy Laboratory
HCL	Hot Chemistry Laboratory
HWMA	Hazardous Waste Management Act
ICDF	INEEL CERCLA Disposal Facility
IDEQ	Idaho Department of Environmental Quality
INEEL	Idaho National Engineering and Environmental Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
LDR	land disposal restriction
MCC	Multi-Curie Cell
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NWCF	New Waste Calcining Facility
OSL	Old Shift Laboratory
OU	operable unit
PCB	polychlorinated biphenyl
PEW	Process Equipment Waste
RAF	Remote Analytical Facility

RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RWMC	Radioactive Waste Management Complex
S&M	surveillance and maintenance
TSD	Treatment, Storage, and Disposal Facility
WAC	Waste Acceptance Criteria
WAG	Waste Area Group

Action Memorandum for the Decontamination and Decommissioning of Building CPP-627, the Remote Analytical Facility

1. STATEMENT OF BASIS AND PURPOSE

This Action Memorandum documents selection of the non-time critical removal action recommended in the *Engineering Evaluation/Cost Analysis for the Decontamination and Decommissioning of Building CPP-627, The Remote Analytical Facility* (DOE-ID 2004a). Building CPP-627 is a part of the Fuel Reprocessing Complex at the Idaho Nuclear Technology and Engineering Center (INTEC) at the U.S. Department of Energy's (DOE's) Idaho National Engineering and Environmental Laboratory (INEEL), Butte County, Idaho. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Operable Unit (OU) 3-13 Record of Decision (ROD) governs CERCLA sites within the INTEC facility designated as Waste Area Group (WAG) 3. This CERCLA removal action is therefore subject to the remedial action objectives established in the OU 3-13 ROD.

This Action Memorandum has been developed in accordance with CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986, and in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the Administrative Record for the Site.

This removal action will reduce the risks to human health, the environment, and site workers by minimizing the potential for release of hazardous and radioactive substances through removal of the waste and disposal of Building CPP-627 down to its concrete slab. The waste generated through the demolition of Building CPP-627 will comprise CERCLA radioactive, hazardous, or mixed radioactive and hazardous wastes, which will be disposed of primarily at the INEEL CERCLA Disposal Facility (ICDF). Some waste, such as piping from Hazardous Waste Management Act (HWMA)/Resource Conservation and Recovery Act (RCRA) -regulated systems, will be disposed of at an off-Site RCRA-compliant Treatment, Storage, and Disposal (TSD) Facility.

This removal action is consistent with the CERCLA OU 3-13 ROD for WAG 3, thus supporting the overall remediation goals at WAG 3. The OU 3-13 ROD requires that, if contaminated soils exist beneath a building, the building must be maintained to prevent moisture infiltration and to prevent exposure to current industrial workers. Once decontamination and decommissioning of the building has been completed, and if contaminated soils exist under the footprint of the former building, the soils that exceed the WAG 3 soil remediation goals must be either excavated or capped with an engineered barrier.

Accelerated cleanup of contaminated soil sites at the INEEL this year makes disposal of CPP-627 debris at the ICDF possible, taking advantage of the available soil volume for compaction. Depending on the type of debris, the soil-to-debris ratios for meeting ICDF disposal requirements range from 2:1 to 6:1. Additionally, by conducting this removal action this year, completion of disposal activities is anticipated before the seasonal closure of the ICDF.

2. BACKGROUND AND FACILITY DESCRIPTION

2.1 Background

INTEC, located in the south-central area of the INEEL (Figures 1 and 2), began operations in 1952. Historically, spent nuclear fuel from defense projects was reprocessed to separate reusable uranium. In 1992, DOE discontinued reprocessing.

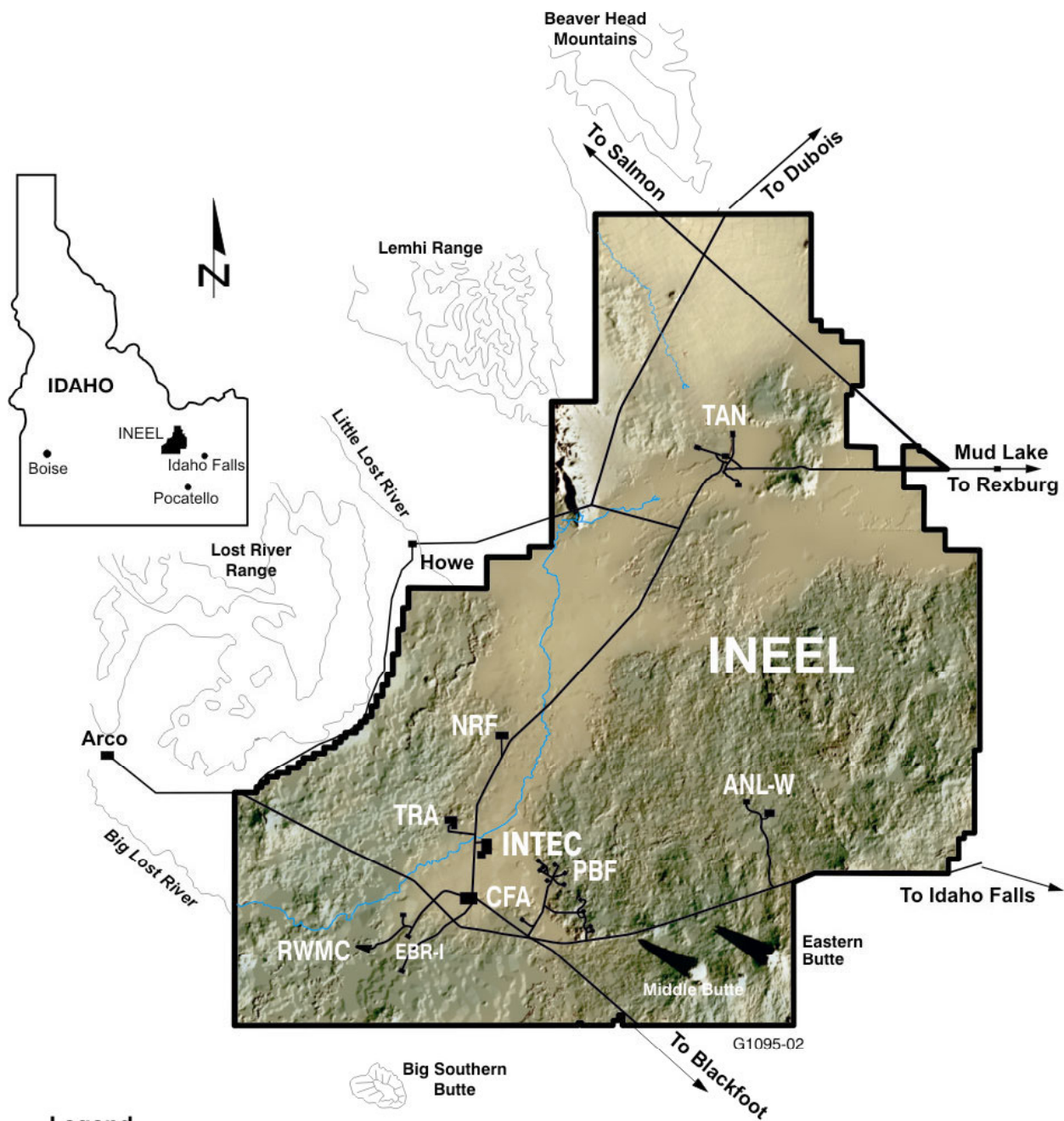
Building CPP-627 is part of the Fuel Reprocessing Complex, which includes Buildings CPP-627, -640, and -601. It provided support to reprocessing activities, including experimentation, sampling and analysis, and unique head-end dissolution. CPP-627 is a 14,727-ft² facility entirely aboveground and is adjacent to and attached to CPP-601 (Wagner 1999). Other buildings attached to the Fuel Reprocessing Complex include CPP-602, a laboratory and office building, and CPP-630, the Safety/Spectrometry building.

CPP-627 was constructed in 1955 to house analytical, experimental, and decontamination facilities. Utilities and waste collection were provided through the CPP-601 facility. While active use of the CPP-627 building ceased in 1997, the building still contains unknown quantities of various radiological and chemical hazardous substances; and the structure is aging and continues to degrade more rapidly each year. These hazardous substances include various radionuclides, lead, mercury, used oil, asbestos, cadmium, chromium, and other chemical residues. Two CERCLA sites are also located beneath the Fuel Reprocessing Complex. These sites, CPP-80 and CPP-86, are identified as Group 2 sites in the OU 3-13 ROD. Site CPP-80 resulted from a hazardous, radioactive liquid condensate leak from the Building CPP-601 vent tunnel drain. Site CPP-86 is a waste trench that runs beneath CPP-602 and collects liquid waste for transfer to the Process Equipment Waste (PEW) evaporator from various CPP-602 operations. As buildings associated with Group 2 sites are removed, the OU 3-13 ROD identifies that the Agencies will perform an evaluation to determine if the soils beneath the buildings contain contaminants exceeding the OU 3-13 action levels and identify any follow-on actions that need to be performed.

2.2 Facility Description

The northern third of the building housed radiochemical analytical facilities. The Remote Analytical Facility (RAF), consisting of two lines of shielded gloveboxes for remote sample preparation and analysis, was on the ground floor. The Old Shift Laboratory (OSL), on the second floor, provided bench and hood space for chemical analysis of nuclear reactor fuel. The OSL operated in conjunction with the RAF to supply 24-hour analytical services in support of CPP-601 and calciner operations. The OSL contained gloveboxes and hoods for analysis of samples of low-to-moderate radioactivity. Liquid wastes from the RAF and OSL were routed to the PEW collection system in CPP-601. Sample residues containing uranium could be routed to the CPP-601 uranium salvage system.

As a result, access to the two lines of gloveboxes in the RAF is restricted because of significant levels of radioactive and residual chemical contamination from analysis of samples of dissolved fuel. Much of this contamination is shielded, using about 120 tons of radiologically contaminated lead (a toxic metal) in various shapes, sizes, and contamination levels (Wagner 1999). The OSL contained gloveboxes and fume hoods to perform analysis of samples with low-to-moderate radioactivity and still remains significantly contaminated with radionuclides and hazardous constituents similar to those in the RAF.



Legend

ANL-W	=	Argonne National Laboratory-West
CFA	=	Central Facilities Area
EBR-I	=	Experimental Breeder Reactor I
INEEL	=	Idaho National Engineering and Environmental Laboratory
<u>INTEC</u>	=	Idaho Nuclear Technology and Engineering Center
NRF	=	Naval Reactors Facility
PBF	=	Power Burst Facility
RWMC	=	Radioactive Waste Management Complex
TAN	=	Test Area North
TRA	=	Test Reactor Area

Figure 1. Location of the Idaho Nuclear Technology and Engineering Center on the Idaho National Engineering and Environmental Laboratory Site.

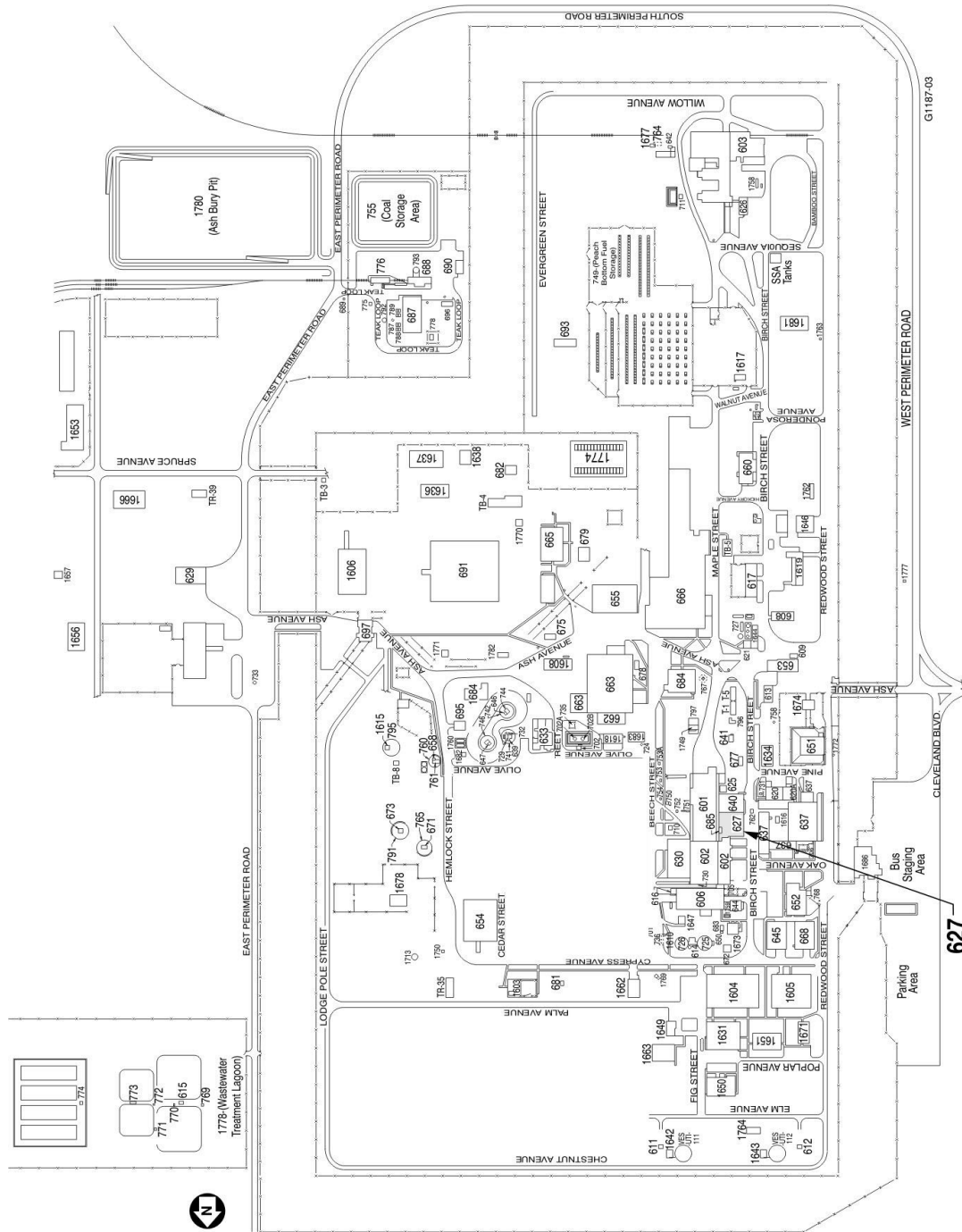


Figure 2. Plan view of the Idaho Nuclear Technology and Engineering Center.

The middle third of Building CPP-627 was a high bay decontamination facility, providing space for water and chemical cleaning of radiologically contaminated equipment. Liquid wastes were routed to the CPP-601 PEW system. In 1980, the decontamination facility was removed and the area was rebuilt into the Emission Spectroscopy Laboratory (ESL) and the Decon Development Laboratory (DDL). Both facilities saw very limited use. The second story provided a fan and filter loft for air handling from some radioactively contaminated portions of the building.

The southern third of Building CPP-627 contained two experimental facilities, the Hot Chemistry Laboratory (HCL) and the Multi-Curie Cell (MCC). The HCL consisted of lab benches, hoods, shielded gloveboxes, and a large walk-in hood used for the Custom Dissolution Process. The MCC was designed for experiments using fully irradiated fuel (including transuranic elements such as plutonium). The MCC was shielded to allow remote experiments on irradiated fuel or calcine. The MCC was also used as part of the Custom Dissolution Process. As in the rest of CPP-627, liquid wastes from the HCL and MCC were routed to the CPP-601 PEW, and uranium solutions were transferred to the CPP-601 uranium salvage system. All the Custom Dissolution Process equipment was previously removed decades ago. The Chemical Dissolution Process precedes the first step in an extraction process.

Radiological and hazardous material contamination remains in the building's ventilation ducting and high-efficiency particulate air filter banks. Repairs were successfully made to the roof over the second-floor OSL, because previous precipitation events caused the roof to leak, allowing radiological and hazardous substances to migrate within the building.

Building CPP-627 was taken out of service in 1997. Currently, the building is undergoing regular surveillance and maintenance (S&M) to ensure that contaminants remaining in the building do not spread or expose workers. S&M, a predecessor step to decontamination and decommissioning, includes the periodic inspection of the facility and maintenance to prevent water infiltration or other deterioration that might result in the release of contaminants.

2.3 Previous and Current Actions

The new decontamination cell at the New Waste Calcining Facility (NWCF) replaced the decontamination facility in 1980. The original equipment was removed and the area was rebuilt, following decontamination, into the DDL and the ESL. Additionally, the MCC was decontaminated at least two times since the late 1970s.

Through the years, waste piping at CPP-627 has been upgraded. Old lines were drained and capped during the CPP-601 buried line replacement project. RCRA-compliant waste drains were installed in 1993-1994 and connected with the CPP-601 collection system. Some of the lines, such as the piping installed in 1991 in the HCL and the MCC, were never put into service (Wagner 1999).

Currently, the building is undergoing regular S&M to ensure that contaminants remaining in the building do not spread or expose workers.

The public was informed that an Engineering Evaluation/Cost Analysis (EE/CA) (DOE-ID 2004a) was available in the Administrative Record. The EE/CA was released for public comment on April 19, 2004. DOE-ID held an "information fair" in Idaho Falls, Idaho, on May 17, 2004, to present information regarding this and other planned CERCLA removal actions at the INEEL. Appendix A contains the public comments received on the EE/CA and the written responses.

3. THREAT TO PUBLIC HEALTH/WELFARE/ENVIRONMENT

The NCP (Section 300.415(b)) identifies factors that must be considered in determining whether a threat to public health or welfare or the environment exists. If a threat is determined to exist, a removal action is appropriate. The factors applicable to CPP-627 are

- Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants (NCP Section 300.415 (b)(2)(i))
- Actual or potential contamination of drinking water supplies or sensitive ecosystems (NCP Section 300.415 (b)(2)(ii)).

The CPP-627 building is contaminated with hazardous substances, including radionuclides. Radiological and hazardous substance contamination remains in the building's ventilation ducting and high-efficiency particulate air filter banks. Other building components and equipment also contain radiological and hazardous substances. Table 1 contains the expected waste streams with anticipated waste volumes.

Continued S&M does not reduce future risks to workers, public health and welfare, or the environment. The inspection activities expose workers to hazards associated with the contaminants in CPP-627 and, over time, pose cumulative risk to workers. Without the existing operational controls, workers could be directly exposed to contaminants through skin contact, ingestion, or inhalation. Radionuclides are known carcinogens, and the nonradioactive contaminants present the potential for both

Table 1. Expected waste streams and volumes for CPP-627.

Waste Type	Estimated Volume	Comments
Mixed low-level waste debris	520 yd ³ 120 tons (lead)	This includes the A/B lines in the RAF, pipes and valves associated with the PEW system, lead used for shielding, gloveboxes/hoods, and electrical components/equipment. A portion of this waste stream is HWMA/RCRA-regulated.
Low-level waste debris	1,000 yd ³	This includes the structure, metal items, lab benches, conduit, non-PEW pipes, and gloveboxes/hoods.
Industrial debris	300 yd ³	This includes structural concrete, roofing, and other items determined to be nonhazardous and nonradioactive.
Toxic Substances Control Act-regulated	25 yd ³	This is polychlorinated biphenyl (PCB) waste from light fixtures and debris with paint containing PCBs. This may have radioactive contamination.
Low-level waste (asbestos)	3,200 ft ² of duct insulation, fire doors, and Transite siding plus 530 linear ft of pipe insulation and wrap	Friable asbestos-containing material (ACM) occurs in duct insulation, pipe insulation, pipe wrap and mudded joints, Transite siding, and fire doors. Radiological contamination of the ACM within the building is expected.
Potential recyclable materials	20 yd ³	Includes oil and lead/acid batteries.

carcinogenic and noncarcinogenic risks. By carrying out this removal action and properly managing any wastes generated, the future risk posed to workers is substantially less than the risks posed by continued S&M activities as the building deteriorates.

Another concern is the potential risk to groundwater posed by a possible future release of contaminants to the subsurface. As the building continues to deteriorate, the threat of a potential release to the subsurface increases each year. The underlying Snake River Plain Aquifer is the sole source of drinking water for many citizens of Idaho.

4. ENDANGERMENT DETERMINATION

Although the CPP-627 building is maintained in compliance with regulations, as the building continues to age and deteriorate, the threat of a potential release increases. Actual or threatened releases of hazardous substances from the site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health or welfare or the environment.

Because releases will occur in the future if no action is taken, a “threat of release” justifies a removal action in the deactivation, decontamination, and decommissioning (DD&D) of this building under DOE’s removal action authority.

5. PROPOSED ACTIONS

This section provides information regarding the proposed action and alternatives considered.

5.1 Proposed Action

The proposed action is described below.

5.1.1 Complete Removal of CPP-627 Facility to Slab on Grade

The selected Removal Action consists of the physical removal of the CPP-627 building and its contents with the disposal of the generated wastes in suitable disposal facilities. Waste disposal facilities are available at the INEEL to accommodate the wastes generated during removal of the building contents and demolition of the building. The anticipated waste streams and the suspected source of contamination are identified in Table 2. The actual contaminants in the waste will be determined in accordance with the Characterization Plan (DOE-ID 2004b) and identified on the waste profile. The characterization plan will be reviewed and approved by the U.S. Environmental Protection Agency (EPA) and Idaho Department of Environmental Quality (IDEQ). The majority of the waste is anticipated to meet the Waste Acceptance Criteria (WAC) for the ICDF landfill (DOE-ID 2004c), and disposal can be coordinated with upcoming soil disposal activities from other INEEL contaminated sites. Wastes not complying with the ICDF WAC will be staged/stored for disposal at an on-Site or off-Site facility, subject to meeting its WAC. In addition, any waste not meeting the ICDF WAC will be discussed with the Agencies.

Table 2. Anticipated waste streams and sources of contamination.

Waste Stream #	Waste Stream (Affected Media)	Known or Suspected Source of Contamination	Type of Contamination from Each Source (General Contamination)
1.	ACM (floor tiles, ceiling tiles, cement, sheetrock tape, asbestos gaskets, piping insulation)	Potential airborne radioactive contamination	Mixed fission products, activation products, and transuranics
		Asbestos-impregnated building materials	Asbestos fibers
2.	Concrete (poured and block), sheetrock, doors, non-asbestos-containing demolition debris in general	Potential airborne radioactive contamination	Mixed fission products, activation products, and transuranics
		Potential for heavy metals and PCBs in paint	Heavy metals, PCBs
3.	Residual liquids from PEW Evaporator piping system	Residual contaminated liquids possibly present in piping	Mixed fission products, activation products, and transuranics
			Laboratory and industrial chemicals, PCBs
4.	Fluorescent light ballast, transformers, and other electrical ballasts	Internals of transformers/ballasts	PCBs
5.	Fluorescent light tubes	Internals of fluorescent light tubes	Heavy metals
6.	Nonrecyclable used oil	Potential radioactive contamination	Mixed fission products, activation products, and transuranics
			RCRA metals, organics, PCBs
7.	Elemental mercury and mercury switches	Mercury spills associated with laboratory activities and mercury-activated switch gear	Heavy metals
8.	Elemental lead (lead solids)	Lead from shielding and hoods, weights from manipulators, lead blankets, and other lead items	Lead
		Potential radioactive contamination	Mixed fission products, activation products, and transuranics
9.	Contaminated process and analytical equipment	Laboratory sample and process waste residues	Mixed fission products, activation products, and transuranics
			Laboratory and industrial chemicals, PCBs

Other on-Site facilities that may be used for management of the waste include the Landfill Complex at the Central Facilities Area (CFA) and the Radioactive Waste Management Complex (RWMC). EPA will make off-Site determinations (40 CFR 300.440) for all disposal locations other than the ICDF. HWMA/RCRA-regulated systems that are a hazardous waste will be managed in a RCRA-compliant TSD Facility. Building materials or contents will be recycled to the extent possible.

After the building has been removed down to the concrete slab floor, it will be surveyed for any remaining radioactive contamination and necessary controls will be implemented (e.g., engineered cover) to put the site in a stable condition that would preclude infiltration of water and migration of the contaminants below the slab to the aquifer. Institutional controls, such as site access restrictions, warning signs, and periodic inspections of infiltration barriers, will be implemented, as necessary. Consistent with the OU 3-13 Group 2, Soils Under Buildings sites, the soil beneath the slab will be evaluated during the characterization of the Fuel Reprocessing Complex. If contamination is found, it will be addressed during the planning for the D&D of CPP-601 and -640 and adjoining buildings.

This action was selected because

- Demolition and removal of the building is the most effective action to reduce worker exposure and eliminate the threat of a release to the environment.
- Disposal at the ICDF or other INEEL disposal facilities is readily available, requiring minimal handling and transporting of the wastes.
- This removal action is consistent with the CERCLA OU 3-13 ROD for WAG 3. As such, it supports the overall remediation at WAG 3.
- Accelerated cleanup of contaminated soil sites at the INEEL this year makes disposal of the CPP-627 debris at the ICDF possible, while ensuring the required soil-to-debris ratio at the landfill. The CPP-627 removal action must be accomplished before the seasonal closure of the ICDF to take advantage of the soil volume available at the ICDF for compaction around the CPP-627 debris.

All activities will be performed using currently accepted practices and standard operating procedures listed in the project health and safety plan.

5.1.2 Removal Action Objectives and Contribution to Remedial Performance

These removal action goals are consistent with the remedial action objectives established in the *Final Record of Decision Idaho Nuclear Technology and Engineering Center, Operable Unit 3-13*, (DOE-ID 1999). As such, the removal action will be consistent with and will contribute to the overall remediation of the INTEC under CERCLA.

The removal action objectives are as follows:

- Reduce the potential for worker exposure and the risk of a release of hazardous and/or radioactive contaminants to the air or to the subsurface during removal and disposal of the Building CPP-627 structure and contents down to the concrete slab floor.
- Reduce the risk of contaminant migration to the underlying Snake River Plain Aquifer by removing the contaminant source in the CPP-627 structure.

- Prevent worker exposure through new or continued engineering and institutional controls to potential contaminants remaining in and under the CPP-627 concrete slab floor, after completion of the removal action, until the final remedial action is implemented.
- Prevent migration of contaminants remaining in and under the CPP-627 concrete slab floor to the Snake River Plain Aquifer, through new or continued engineering and institutional controls, after completion of the removal action and until the final remedial action is implemented.
- Accelerated cleanup of contaminated soil sites at the INEEL this year making it possible to dispose of CPP-627 debris at the ICDF by taking advantage of the available soil volume for compaction. Additionally, conducting this removal action this year ensures the activities can be completed before the seasonal closure of the ICDF.

5.2 Engineering Evaluation/Cost Analysis

The *Engineering Evaluation /Cost Analysis for the Decontamination and Decommissioning of Building CPP-627, The Remote Analytical Facility* (DOE-ID 2004a) is contained in the administrative record. The EE/CA evaluated two alternatives: No Action (Continued S&M) and Complete Removal of the CPP-627 Facility to Slab on Grade.

5.2.1 No Action Alternative (Continued Surveillance & Maintenance)

The No Action Alternative with S&M provides an environmental baseline against which impacts of the recommended removal action can be compared. Taking no action includes S&M being carried out until the eventual deactivation and demolition of the building, assumed to occur by 2020 pursuant to the INTEC Completion Life-Cycle Baseline (INEEL 2003). This alternative would be unacceptable because contaminants in the building would eventually be released to the environment. No actions would be taken to reduce the contaminant mobility, toxicity, or volume. Although the No Action Alternative could be easily implemented and would have only minor costs, it would not satisfy the removal action objectives and is, therefore, unacceptable. Annual S&M cost for the CPP-627 building is estimated to be \$15,000 and over the estimated 15-year monitoring period would amount to \$225,000. The annual operations and maintenance costs are estimated at \$320,000 and over the 15-year monitoring period would amount to \$4.8 million. The total (net present value), including S&M, operations support, and building removal, for this alternative is estimated to be \$9.6 million. The longer action is delayed, the higher the cleanup cost would be. Finally, this alternative would simply delay the final action for CPP-627, increasing the length of time over which the threat of release is not addressed.

5.2.2 Complete Removal of CPP-627 Facility to Slab on Grade

This alternative was evaluated in the EE/CA and is described in Section 5.1.1, above.

5.3 Applicable or Relevant and Appropriate Requirements

Section 300.415(j) of the NCP provides that the removal actions must attain applicable or relevant and appropriate requirements (ARARs) to the extent practicable, considering the exigencies of the situation. Section 300.5 of the NCP defines applicable requirements as cleanup standards; standards of control; and other substantive environmental protection requirements, criteria, or limitations promulgated under federal environmental, state environmental, or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstances at a CERCLA site.

The CPP-627 non-time critical removal action will comply with the three types of ARARs. Action-specific ARARs restrict specific types of activities or technologies. Chemical-specific ARARs are generally health- or risk-based requirements that establish numerical limits on the amounts or concentrations of a particular hazardous substance that may be discharged to or present in the environment. Location-specific ARARs restrict specific activities occurring in particular locations.

The proposed removal action will comply with the ARARs identified in Table 3. These ARARs are a compilation and expansion of the ARARs identified in the OU 3-13 ROD. The ARARs list is based on several key assumptions:

- Management of CERCLA wastes will be subject to meeting the WAC of the receiving facility, whether that facility is an on-Site facility, such as the ICDF, RWMC, INEEL Landfill Complex at CFA, or an off-Site facility. The ICDF is the preferred location for disposal of contaminated CERCLA wastes and is located within the WAG 3 area of contamination (DOE-ID 1999).
- CERCLA wastes that will be generated during implementation of the removal action will be handled in accordance with the ARARs identified in Table 3.
- Waste, such as piping, that would be generated by removal of portions of a HWMA/RCRA-regulated system at CPP-627 will be managed at an on-Site HWMA/RCRA storage facility and disposed of at an off-Site RCRA TSD Facility.
- As the wastes will be CERCLA wastes generated within the WAG 3 area of contamination, land disposal restrictions (LDRs) are not applicable unless placement is triggered or treatment is performed, except as otherwise noted in this document.
- Though not expected to be encountered, if waste generated during the CPP-627 removal action that has uncertainties associated with waste classification (i.e., whether the waste may be high-level waste), such waste will be appropriately staged/stored until appropriate waste classification determinations are made under appropriate criteria.
- Though not expected to be encountered, waste generated during the CPP-627 removal action that is classified as a high-level waste (e.g., if a sample vial of calcine is found), this waste will be identified as a high-level waste and managed accordingly.
- If decontamination liquids are generated, they may be transferred, using the existing waste lines where possible, to the CPP-601 WG/WH Cells Storage and Treatment Tanks. These tanks are HWMA/RCRA-regulated, and any wastes sent to them would be required to meet the WAC prior to transfer.
- Debris generated during demolition of CPP-627 may have paint that contains PCBs. If encountered, such wastes may trigger substantive requirements of the Toxic Substances Control Act. Lead-contaminated paint may be generated during demolition, which will be subject to the substantive requirements of RCRA hazardous waste regulations. These wastes are planned for disposal at the ICDF, unless it can be demonstrated that they are eligible for disposal as solid waste at the Landfill Complex at CFA.
- Asbestos-containing material will be encountered during demolition. These wastes will be subject to certain asbestos regulations and will be acceptable for disposal at the ICDF or, if not radiologically contaminated, at the INEEL Landfill Complex at CFA.

Table 3. Applicable or relevant and appropriate requirements for the CPP-627 non-time critical removal action.

Requirement (Citation)	ARAR Type			Description	Compliance Strategy
	Action Specific	Chemical Specific	Location Specific		
Clean Air Act and Idaho Air Regulations “Toxic Substances,” IDAPA 58.01.01.161		A		Applies to the building demolition and waste handling activities.	Following performance of an evaluation to determine the extent of emissions of toxic substances, any necessary controls to limit the potential releases will be implemented. Controls would include use of filters and control tents, or other emission limiting features.
“National Emission Standards for Hazardous Air Pollutants,” <10 mrem/yr, 40 CFR 61.92, “Standard”		A		Applies to the building demolition and waste handling activities.	Following performance of an evaluation to determine the extent of emissions of toxic substances, any necessary controls to limit the potential releases will be implemented. Controls would include use of sprays, fixatives, filters, control tents, or other emission limiting features.
“National Emission Standards for Hazardous Air Pollutants,” 40 CFR 61.93, “Emission Monitoring and Test Procedures”	A			Applies to the building demolition and waste handling activities.	Measures will be implemented to minimize the generation of radionuclide emissions. Measures used to reduce emissions from contaminated wastes may include use of water spray, latex-based spray coatings on the waste, keeping vehicle speeds to a minimum, covering transport containers with tarps, and work controls during high winds.

Table 3. (continued).

Requirement (Citation)	ARAR Type			Description	Compliance Strategy
	Action Specific	Chemical Specific	Location Specific		
"National Emission Standards for Hazardous Air Pollutants," 40 CFR 61.94(a), "Compliance and Reporting"	A			Applies to the building demolition and waste handling activities.	Measures will be implemented to minimize the generation of radionuclide emissions. Measures used to reduce emissions from contaminated wastes may include application of a fixative, enclosure of debris in durable, puncture-resistant material.
"National Emission Standards for Hazardous Air Pollutants," 40 CFR 61.145, "Standards for Demolition and Renovation"	A	A		Applies to asbestos-containing materials encountered during demolition.	Following performance of an evaluation to determine the extent of emissions of hazardous substances, any necessary controls to limit the potential releases will be implemented. Controls would include use of filters and control tents, or other emission limiting features.
"Rules for Control of Fugitive Dust," and "General Rules," IDAPA 58.01.01.650 and .651	A			Applies to the building demolition and waste handling activities.	Measures will be implemented during the removal action to minimize the generation of fugitive dust. These measures may include water sprays, commercial dust suppressants, minimizing vehicle speeds, and work controls during high winds.

Table 3. (continued).

Requirement (Citation)	ARAR Type			Description	Compliance Strategy
	Action Specific	Chemical Specific	Location Specific		
RCRA and Idaho Hazardous Waste Management Act					
Generator Standards:					
“Standards Applicable to Generators of Hazardous Waste”					
“Hazardous Waste Determination,” 40 CFR 262.11 (IDAPA 58.01.05.006)	A	A		Applies to waste that will be generated during the removal action and disposed of outside the WAG 3 area of contamination.	Hazardous waste determinations will be performed on waste streams generated during the removal action and disposed of outside of the area of contamination, as specified in the Waste Management Plan (DOE/NE-ID-11171, in preparation).
General Facility Standards:					
“Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities”					
“Temporary Units,” 40 CFR 264.553 (IDAPA 58.01.05.008)	A			Wastes may be treated or temporarily stored in a temporary unit prior to disposal.	The siting of a temporary unit to manage wastes is not planned due to the availability of the Staging and Storage Annex and ICDF for management of potential waste streams requiring storage. If, due to unusual circumstances, a temporary unit is needed, the site and location will be provided to the Agencies with a 5-day comment period.
“Remediation Waste Staging Piles,” 40 CFR 264.554 (IDAPA 58.01.05.008)	A			Wastes may be temporarily staged prior to disposal without triggering LDRs.	The use of staging piles at the site is not anticipated. If, due to management needs, a waste staging pile is necessary, it will be established in proximity to the site and the location will be provided to the Agencies with a 5-day comment period.

Table 3. (continued).

Requirement (Citation)	ARAR Type			Description	Compliance Strategy
	Action Specific	Chemical Specific	Location Specific		
"General Waste Analysis," 40 CFR 264.13 (a)(1-3) (IDAPA 58.01.05.008)	A			General waste analysis is performed prior to management.	Before managing waste, sampling and process knowledge information is obtained and evaluated to facilitate waste treatment, storage, and disposal, as applicable.
"General Inspections Requirements," 40 CFR 264.15 (IDAPA 58.01.05.008)	A			Applies to a facility staging, storing, or treating hazardous waste prior to transfer to the ICDF or an off-Site facility.	Temporary storage units for CERCLA hazardous or mixed waste are not anticipated based on availability of the ICDF staging and storage areas. As containers are being filled, they will be kept within the work area. When the containers have been filled, or no additional wastes for that waste stream will be generated, the container labels will be completed and the containers will be transferred for storage or disposal within 10 working days.
"Preparedness and Prevention," 40 CFR 264, Subpart C (IDAPA 58.01.05.008)	A			Applies to a facility staging, storing, or treating hazardous waste prior to transfer to the ICDF or an off-Site facility.	Temporary storage units for CERCLA hazardous or mixed waste are not anticipated based on availability of the ICDF staging and storage areas. As containers are being filled, they will be kept within the work area. When the containers have been filled, or no additional wastes for that waste stream will be generated, the container labels will be completed and the containers will be transferred for storage and disposal within 10 working days.

Table 3. (continued).

Requirement (Citation)	ARAR Type			Description	Compliance Strategy
	Action Specific	Chemical Specific	Location Specific		
“Contingency Plan and Emergency Procedures,” 40 CFR 264, Subpart D (IDAPA 58.01.05.008)	A			Applies to a facility staging, storing, or treating hazardous waste prior to transfer to the ICDF or an off-Site facility.	Temporary storage units for CERCLA hazardous or mixed waste are not anticipated based on availability of the ICDF staging and storage areas. As containers are being filled, they will be kept within the work area. When the containers have been filled, or no additional wastes for that waste stream will be generated, the container labels will be completed and the containers will be transferred to storage or disposal within 10 working days.
“Disposal or Decontamination of Equipment, Structures, Soils,” 40 CFR 264.114 (IDAPA 58.01.05.008)	A			Applies to contaminated equipment used to remove, treat, or transport hazardous waste.	Contaminated equipment, soils, and structures will be disposed of and/or decontamination residuals from decontamination operations will be managed according to the Waste Management Plan (DOE/NE-ID-11171, in preparation).
“Use and Management of Containers,” 40 CFR 264.171–178 (IDAPA 58.01.05.008)	A			Applies to containers used during the removal and treatment of hazardous waste at the demolition site.	Treatment or storage of hazardous wastes at the removal site is not planned. If management needs change, the containers will be managed in accordance with the requirements.

Table 3. (continued).

Requirement (Citation)	ARAR Type			Description	Compliance Strategy
	Action Specific	Chemical Specific	Location Specific		
Land Disposal Restrictions:					
“Applicability of Treatment Standards,” 40 CFR 268.40(a)(b)(e) (IDAPA 58.01.05.011)	A			Applies to hazardous waste and secondary wastes, if treatment is necessary to meet the disposal facility WAC or if treatment is required due to placement.	LDRs will be met for CERCLA hazardous wastes that have triggered placement or are sent to an off-Site facility for disposal. Short-term management of this project’s wastes in staging piles will not trigger placement (see ARAR for staging piles).
“Treatment Standards for Hazardous Debris,” 40 CFR 268.45 (IDAPA 58.01.05.011)	A			Applies to CPP-627 debris, if treatment is necessary to meet the disposal facility WAC or if treatment is required due to placement.	The treatment standards for hazardous debris will be met for the CERCLA wastes that have triggered placement or are sent to an off-Site facility for disposal. Short-term management of this project’s waste in staging piles will not trigger placement.
“Universal Treatment Standards,” 40 CFR 268.48(a) (IDAPA 58.01.05.011)	A			Applies to nondebris hazardous waste and secondary wastes, if treatment is necessary to meet the disposal facility WAC or if treatment is required due to placement.	The treatment standards for hazardous debris will be met for the CERCLA wastes that have triggered placement or are sent to an off-Site facility for disposal. Short-term management of this project’s waste in staging piles will not trigger placement.
“Alternative LDR Treatment Standards for Contaminated Soil,” 40 CFR 268.49 (IDAPA 58.01.05.011)	A			Applies to contaminated soil, if treatment is necessary to meet the disposal facility WAC or if treatment is required due to placement.	The alternative treatment standards for contaminated soils will be met if placement is triggered or wastes are sent to an off-Site facility for disposal.

Table 3. (continued).

Requirement (Citation)	ARAR Type			Description	Compliance Strategy
	Action Specific	Chemical Specific	Location Specific		
Toxic Substances Control Act					
“PCB Decontamination Standards and Procedures: Decontamination Standards,” 40 CFR 761.79(b)(1)	A	A		Applicable to decontamination of equipment with PCB contamination, if PCB wastes are generated.	These standards will be met for water containing PCBs when decontamination efforts are implemented.
“Decontamination Standards and Procedures: Self-Implementing Decontamination Procedures,” 40 CFR 761.79(c)(1) and (2)	A	A		Applicable to decontamination of equipment with PCB contamination, if PCB wastes are generated.	This standard will be implemented during decontamination of equipment and materials.
“Decontamination Solvents,” 40 CFR 761.79(d)	A	A		Applicable to decontamination of equipment used to manage PCB-contaminated waste, if PCB wastes are generated.	Solvents will be used, as necessary, to remove PCB contamination from equipment and materials. Use and management of solvents will be accordance with this requirement.
“Limitation of Exposure and Control of Releases,” 40 CFR 761.79(e)	A	A		Applicable to decontamination activities of equipment contaminated with PCB-contaminated waste, if decontamination is performed.	This standard will be used to limit exposure and releases associated with decontamination activities. Controls will include use of protective clothing and equipment for personnel, and other measures to protect against releases of PCBs.
“Decontamination Waste and Residues,” 40 CFR 761.79(g)	A	A		Applicable to management of decontaminated wastes and residuals from PCB-contaminated equipment, if PCB wastes are generated.	Where PCB waste is expected, waste stream sampling and analysis will be performed to complete the waste profiles for the disposal facility.

Table 3. (continued).

Requirement (Citation)	ARAR Type			Description	Compliance Strategy
	Action Specific	Chemical Specific	Location Specific		
To-Be-Considered Requirements					
“Radiation Protection of the Public and the Environment,” DOE Order 5400.5, Chapter II(1)(a,b)	TBC			Applies to the CPP-627 building before, during, and after the removal action. Substantive design and construction requirements will be met to keep public exposures as low as reasonably achievable.	Specific radiation dose limits to the public will be met through monitoring, administrative controls, and engineering controls as required during construction in contaminated areas.
“Radioactive Waste Management,” DOE Order 435.1	TBC			Applies to the CPP-627 building before, during, and after the removal action. Substantive design and construction requirements will be met to protect workers.	Dose to workers will be reduced through the use of monitoring, administrative controls, and engineering controls. Job safety analyses and/or radiological work permits will be prepared for tasks where there is the potential for exposures to radioactive contamination/materials. Radiological work permits will be developed by radiological control personnel based on actual hazards and in accordance with applicable company manuals.
EPA Region 10 Final Policy on Institutional Controls at Federal Facilities	TBC			Applies if contamination is left in place after removal of the CPP-627 building.	Under this removal action, the building structure and components will be removed and disposed. Controls will be implemented (e.g., engineered cover) to put the site in a stable condition that would preclude infiltration of water and migration of the contaminants below the slab to the aquifer.

Table 3. (continued).

Requirement (Citation)	ARAR Type			Description	Compliance Strategy
	Action Specific	Chemical Specific	Location Specific		
"Off-Site Rule," 40 CFR 300.440	TBC			Applies if wastes are shipped off-Site for storage, treatment, or disposal.	Any off-Site facility receiving CERCLA wastes will be subject to compliance with 40 CFR 300.440 requirements. Prior to shipment of any CERCLA remediation wastes to an off-Site facility, a suitability determination will be performed and documented.
<p>Key:</p> <p>A = applicable requirement; R = relevant and appropriate requirement; TBC = to be considered.</p> <p>ARAR = applicable or relevant and appropriate requirement.</p> <p>CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act.</p> <p>CFR = Code of Federal Regulations.</p> <p>DOE = U.S. Department of Energy.</p> <p>EPA = U.S. Environmental Protection Agency.</p> <p>IC/DF = INEEL CERCLA Disposal Facility.</p> <p>ID/APA = Idaho Administrative Procedures Act.</p> <p>LDR = land disposal restriction.</p> <p>PCB = polychlorinated biphenyl.</p> <p>RCRA = Resource Conservation and Recovery Act.</p> <p>WAC = Waste Acceptance Criteria.</p> <p>WAG = waste area group.</p>					

- Approximately 120 tons of lead shielding, in various forms, will be generated as a waste during demolition. This lead will be recycled to the extent possible but otherwise disposed of at the ICDF.
- Mercury may be discovered in electrical switching equipment during demolition and will be recycled, to the extent possible. Otherwise, this waste will be disposed of at an off-Site RCRA TSD facility.

6. PROJECT SCHEDULE

This removal action is expected to begin onsite activities in June 2004 with anticipated completion by April 2005. DOE will prepare a Removal Action Work Plan and will submit it to EPA and IDEQ for review in June 2004. The building demolition and waste disposal are anticipated to be completed by January 2005. The Removal Action Report is anticipated to be completed by April 2005 and will be submitted to EPA and IDEQ for review. Characterization of the underlying soil will follow as a separate activity under CERCLA.

7. ESTIMATED COST

The estimated cost of the removal action is approximately \$4.6 million and is shown in Table 4. The cost estimate includes management and oversight, engineering, construction, decontamination, and demolition costs for removing the structure and its components. The costs represented are in net present value terms and an escalation factor has not been applied. The cost estimate is based on performing the work in the current calendar year.

DOE is responsible for removal action costs and the funds are available to implement the action. The project cost estimate is available in the Administrative Record for this action.

Table 4. Estimated costs for CPP-627 removal action.

Project Tasks	Cost Estimate (\$000)
Management and oversight	407
Engineering	780
Construction	152
Decontamination	1,730
Demolition	1,550
Total:	4,619
Total (net present value):	4,619

8. EXPECTED CHANGE SHOULD ACTION BE DELAYED OR NOT TAKEN

The expected change to Building CPP-627, should action be delayed or no action taken, would be that the building would remain as it is today. Because the building would continue to deteriorate, the potential that a release could expose site workers to hazardous and radioactive substances over time will continue. Additionally, workers will accumulate radiological dose from maintaining and inspecting the building. Finally, the soil volume necessary to ensure proper compaction of the disposed CPP-627 debris

at the ICDF may not be available if action is delayed. If this soil volume is not available, disposal at the ICDF may be impacted and may result in increased disposal costs.

9. STATUTORY AND REGULATORY AUTHORITY

The proposed removal action is being undertaken by the DOE, as lead agency, pursuant to the CERCLA Section 104 (a) and the Federal Facility Agreement and Consent Order for the Idaho National Engineering and Environmental Laboratory (DOE-ID 1991). In accordance with 40 CFR 300.415(j) and DOE guidance, on-Site removal actions conducted under CERCLA are required to meet ARARs to the extent practicable considering the exigencies of the situation. DOE intends to comply with the ARARs and “to-be-considered” guidance as set forth in Section 5.

10. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues.

11. ENFORCEMENT

DOE-ID is conducting this removal action as the lead agency under the authority of 40 CFR 300.5, “Definitions,” and 40 CFR 300.415 (b)(1), “Removal Action.”

12. RECOMMENDATION

This action memorandum serves as a decision document and was developed in accordance with CERCLA and is consistent with the “National Oil and Hazardous Substances Pollution Contingency Plan” (40 CFR 300). Conditions at this site meet the 40 CFR 300.415(b)(2) criteria for a removal action.

Building demolition to the concrete slab and disposal of the debris at the ICDF or other suitable disposal facilities is the selected removal action for Building CPP-627. This alternative is protective of human health and the environment and is cost-effective. It is the simplest and most straightforward alternative for removal of the building and disposition of the generated wastes. The removal action approach is compatible with the OU 3-13 ROD and supports the overall remediation of WAG 3.

This removal action will be coordinated with other soil remediation projects at the INEEL to enable debris disposal in the ICDF landfill. In this instance, debris from CPP-627 to be disposed of in the ICDF landfill requires a large volume of soil to ensure proper compaction of the soil around the debris. Because of accelerated cleanup for contaminated soil at the INEEL this year, a large volume of soil is available for compaction of the CPP-627 debris. Therefore, it is necessary to begin removing debris as soon as possible to coordinate this effort with the disposal of soil from other INEEL CERCLA cleanups.

13. REFERENCES

400 CFR 300, 2003, “National Oil and Hazardous Substances Pollution Contingency Plan,” *Code of Federal Regulations*, Office of the Federal Register, July 2003.

40 CFR 300.5, 2003, “Definitions,” *Code of Federal Regulations*, Office of the Federal Register, July 2003.

- 40 CFR 300.415, 2003, "Removal action," *Code of Federal Regulations*, Office of the Federal Register, July 2003.
- 40 CFR 300.440, 2003, "Procedures for planning and implementing off-site response actions," *Code of Federal Regulations*, Office of the Federal Register, July 2003.
- DOE-ID, 1991, *Federal Facility Agreement and Consent Order for the Idaho Engineering Laboratory*, Administrative Docket No. 1088-06-29-120, U.S. Department of Energy Idaho Field Office; U.S. Environmental Protection Agency, Region 10; Idaho Department of Health and Welfare, December 4, 1991.
- DOE-ID, 1999, *Final Record of Decision, Idaho Nuclear Technology and Engineering Center, Operable Unit 3-13*, DOE/ID-10660, Rev. 0, U.S. Department of Energy Idaho Operations Office; U.S. Environmental Protection Agency, Region 10; Idaho Department of Environmental Quality, October 1999.
- DOE-ID, 2004a, *Engineering Evaluation/Cost Analysis for the Decontamination and Decommissioning of Building CPP-627, the Remote Analytical Facility*, DOE/NE-ID-11157, Rev. 0, U.S. Department of Energy Idaho Operations Office, March 2004.
- DOE-ID, 2004b, *CERCLA Characterization of Waste From CPP-627 DD&D*, DOE/NE-ID-11163, Rev. 0, U.S. Department of Energy Idaho Operations Office, April 2004.
- DOE-ID, 2004c, *Waste Acceptance Criteria for ICDF Landfill*, DOE/ID-10865, Rev. 6, U.S. Department of Energy Idaho Operations Office, April 2004.
- INEEL, 2003, *Idaho Nuclear Technology and Engineering Center Completion, Life-Cycle Baseline*, INEEL/EXT-03-00210, Rev. 0, Idaho National Engineering and Environmental Laboratory, February 2003.
- Wagner, E. P., 1999, *Process Description and Operating History for the CPP-601/-640/-627 Fuel Reprocessing Complex at the Idaho National Engineering and Environmental Laboratory*, INEEL/EXT-99-00400, Idaho National Engineering and Environmental Laboratory, June 1999.

Appendix A
Responses to Public Comments On CPP-627
Removal Action

Responses to Public Comments on CPP-627 Removal Action

Comment No.	Comment/Issue	Resolution
1	<p>The following statement appears on page 2-1 of the Engineering Evaluation/Cost Analysis for this action:</p> <p>“No wastes are expected to be encountered or generated that would be subject to the evaluation WIR process in DOE O 435.1. A citation WIR was issued in October 2001 (DOE-ID 2001) that determined that no high-level waste was expected to result from activities in CPP-627. If unexpected wastes are encountered, such as containerized samples of high-level waste (such as calcine) or similar sample material that may potentially require a review under the evaluation method for making WIR determinations under DOE O 435.1, they will be stored pending resolution of the legal uncertainty concerning certain reprocessing wastes.”</p> <p>This is precisely the kind of scenario that makes reclassification through the sole discretion of the Department of Energy so problematic. Calcine is high-level waste. There has never been any indication that the DOE intends to change its classification. But if the DOE would consider reclassifying a “containerized sample of high-level waste (such as calcine),” it quite obviously raises the specter that the DOE will eventually reclassify all the calcine at INEEL. No reclassification of calcine is acceptable.</p>	<p>The Action Memorandum clarifies the intent concerning the management of waste, if encountered, that would be high-level waste or potential evaluation waste. It is acknowledged that the wording on the identified paragraph in the EE/CA is confusing, as there is no intent to reclassify calcine through a citation WIR process. As a point of clarification, this action does not expect to encounter any wastes that would be classified as a high-level waste (such as calcine) or waste that would subject to the WIR evaluation process.</p> <p>The Action Memorandum will have a statement in Section 5.3, Applicable or Relevant and Appropriate Requirements, Assumption 5 as follows:</p> <p>Though not expected to be encountered, waste generated during the CPP-627 removal action that has uncertainties associated with waste classification (i.e., whether the waste may be high-level waste), such waste will be appropriately staged/stored until appropriate waste classification determinations are made under appropriate criteria.</p> <p>An additional assumption will be added to the Action Memorandum as follows:</p> <p>Though not expected to be encountered, waste generated during the CPP-627 removal action that is classified as a high-level waste (e.g., if a sample vial of calcine is found), this waste will be identified as a high-level waste and managed accordingly.</p>

Comment No.	Comment/Issue	Resolution
2	There is a significant amount of contamination in CPP-627. The building has been unused for several years. Those two facts might mean that the D&D task will be more difficult than currently anticipated. If problems are encountered and work must be suspended, how do you plan to secure the building and its contamination?	The problematic contaminated elements are equipment and components, mainly associated with the A&B lines that are located within the building. It is planned that these items will be removed prior to structural demolition of the building. Radiological control equipment that will be employed includes contamination control tents, fogging, portable HVAC and filters, engineered moveable shielding, constant air monitors, and remote air monitors. If work must be suspended during the internal component removal, the external building structure, along with the functioning HVAC system, is in place to prevent a potential release of contaminants.
3	Has DOE , in consultation with the regulators, developed an ordered list of facilities it intends to D&D in the next five years?	All facilities will be coordinated with the SHPO and HUD prior to any D&D work occurring. The EPA and IDEQ have been provided the accelerated plans for the current contract period (end of January 2005). Additionally, both agencies were briefed on the proposed challenges for the new contract, and the Request for Proposal listed the specific buildings and structures to be removed. For CPP-627, DOE is working closely with the EPA and IDEQ for this removal action.
4	It is our understanding that testing of the soil beneath the concrete slab will occur after the D&D of the building. If you do in fact find contamination under the slab, we urge you to proceed with plans to clean it up, and not rely on the concrete (i.e., cap) to serve as the final step in the cleanup of such contamination.	The engineered cover is not viewed as the final step in the cleanup process, only as an interim measure to restrict infiltration while the characterization of the underlying soil is being performed. This action is consistent with the approach identified in the OU 3-13 Record of Decision for Group 2; the soil will be characterized following building removal. If contamination is discovered, consultation with EPA and IDEQ will occur. It is anticipated that follow-on actions will be coordinated with the D&D of 601/640 complex.

Comment No.	Comment/Issue	Resolution
5	What will happen to all the contaminated lead?	The contaminated lead that cannot be recycled will be disposed of in the ICDF. The ICDF Waste Acceptance Criteria limit the total amount of lead and the concentration of lead in any waste stream, and disposal of the lead will not exceed either limit.